

WHAT IS CLAIMED IS:

1. A method for test head testing of a connection in a synchronous optical network (SONET) element, comprising:

5 dedicating an otherwise assignable output port of a SONET network element
as a test access port;
receiving a request to connect a connection switched by a switch fabric of the
SONET network element to the test access port;
determining whether the request is associated with a test head; and
if the request is associated with the test head, provisioning the switch fabric to
10 connect the connection to the test access port.

2. The method of Claim 1, further comprising, if the request is not
associated with the test head, denying the request.

15 3. The method of Claim 1, wherein the request comprises a test head
identifier for the test access port, further comprising associating the test access port
with the test head identifier.

20 4. The method of Claim 3, wherein the test head identifier comprises a
TL-1 keyword value.

5. The method of Claim 1, further comprising dedicating the otherwise
assignable output port as the test access port using programmable logic.

25 6. The method of Claim 1, wherein the request is a TL-1 command.

7. A system for test head testing of a connection in a synchronous optical network (SONET) element, comprising:

means for dedicating an otherwise assignable output port of a SONET network element as a test access port;

5 means for receiving a request to connect a connection switched by a switch fabric of the SONET network element to the test access port;

means for determining whether the request is associated with a test head; and

means for, if the request is associated with the test head, provisioning the switch fabric to connect the connection to the test access port.

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8. The system of Claim 7, further comprising means for, if the request is not associated with the test head, denying the request.

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9. The system of Claim 7, wherein the request comprises a test head identifier for the test access port, further comprising means for associating the test access port with the test head identifier.

10. The system of Claim 9, wherein the test head identifier comprises a TL-1 keyword value.

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11. The system of Claim 7, further comprising means for dedicating the otherwise assignable output port as the test access port using programmable logic.

12. The system of Claim 7, wherein the request is a TL-1 command.

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TOTALS DRAFTED 9/16/2009

13. A system for test head testing of a connection in a synchronous optical network (SONET) element, comprising logic stored in computer-processable media, the logic operable to:

- 5 dedicate an otherwise assignable output port of a SONET network element as a test access port;
- receive a request to connect a connection switched by a switch fabric of the SONET network element to the test access port;
- determine whether the request is associated with a test head; and
- if the request is associated with the test head, provision the switch fabric to
- 10 connect the connection to the test access port.

14. The system of Claim 13, further comprising logic operable to, if the request is not associated with the test head, deny the request.

15 15. The system of Claim 13, wherein the request comprises a test head identifier for the test access port, further comprising logic operable to associate the test access port with the test head identifier.

20 16. The system of Claim 15, wherein the test head identifier comprises a TL-1 keyword value.

17. The system of Claim 13, further comprising logic operable to dedicate the otherwise assignable output port as the test access port using programmable logic.

25 18. The system of Claim 13, wherein the request is a TL-1 command.

19. A SONET element, comprising:

- a switch fabric;
- a plurality of output ports connected to the switch fabric;
- logic operable to:

5 dedicate an otherwise assignable output port of a SONET network element as a test access port;

 receive a request to connect a connection switched by a switch fabric of the SONET network element to the test access port;

 determine whether the request is associated with a test head; and

10 if the request is associated with the test head, provision the switch fabric to connect the connection to the test access port.

20. A method of configuring a SONET network element to support a test head test session, comprising:

determining which of an available plurality of output ports may be a potential dedicated test access port;

5 dedicating through programmable logic one of the potential dedicated test access ports as a test access port;

receiving a request for connection of a switch fabric to the test access port; and

if the request is associated with a test head, provisioning the switch fabric to connect to the test access port.